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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/517,538	12/10/2004	Jean-Christophe Dupuy	FR 020701	5675

24737 7590 07/17/2006

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER	
HOLLIDAY, JAIME MICHELE	
ART UNIT	**PAPER NUMBER**
2617	

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/517,538	DUPUY ET AL.	
	Examiner	Art Unit	
	Jaime M. Holliday	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *5/1/06*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) *5,12 and 14* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,10,11,13 and 15-20* is/are rejected.

7)☒ Claim(s) *6-9* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 December 2004* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Amendment

Response to Arguments

1. Applicant's arguments with respect to **claims 1-20** have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

2. **Claim 20** is objected to because of the following informalities:

a) On **line 2** of **claim 20**, insert "claim" before "19," in order to have the proper from a dependent claim.

Appropriate correction is required.

3. The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Claims 6-9 are dependent are claims 5, 6, 6 and 8, respectively. These claims will not be prosecuted on their merits since they are dependent on a cancelled claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims **10, 13 and 15-17** rejected under 35 U.S.C. 102(a) as being anticipated by **Vilppula et al. (Pub # U.S. 2002/0019698 A1)**.

Consider **claim 10**, Vilppula et al. clearly show and disclose positioning methods are connected to the positioning method selection device (PMSD) through an interface **110**. The interface can comprise, for example, a serial port or the like for the connection of an external positioning method, as well as interfaces for positioning methods integrated in the terminal and, for example, for positioning-related services provided by a mobile communication network, reading on the claimed "mobile equipment having data processing capabilities, comprising:

- at least two position determination devices each capable of delivering position information of the mobile equipment in a specific format," (paragraph 45),
- parameter (or parameters) describing the quality of the positioning data provided by positioning method x is stored in register **115**, where x indicates the positioning method in use and is an integer between 1 and the number of available positioning methods, and the value of the

parameter (or parameters) describing the quality actually achieved by the positioning data provided by method x is stored in register **117**, when said positioning method returns the positioning data requested by application n to the PMSD, reading on the claimed "at least two drivers for said position determination devices, each driver being capable of storing and retrieving at least one parameter associated with the position determination device," (paragraphs 48 and 50), and

- control means **111** to **113** control the operation of the various functional blocks of the PMSD as well as data transmission between them. The control means comprise a controller **111**, which can be implemented, for example, as a microprocessor or equivalent means for controlling the functions of the PMSD. The control means further comprise a random access memory **112**; as well as a permanent memory **113** for storing commands required for the control of the PMSD functions. Parameters describing the quality of the positioning data provided by positioning method x is stored in register **115**. The user can define parameters, which represent conditions on the basis of which a positioning method to be used is selected, through user interface **307**. Said conditions can comprise, for instance, the positioning methods the user allows to be used by certain applications at a given time and the order in which the user prefers the positioning methods to be used. The parameters provided by the user are stored

(ref. 310) in register **308**, from which the PMSD can retrieve them (ref. 312), reading on the claimed "a location handling unit in communication with said drivers and capable of communicating with an application for providing position information, said location handling unit being capable of selecting a position determination device to be used for obtaining position information based on a context information and on the values of said parameters stored in the drivers wherein each driver is capable of storing and retrieving at least two different parameters and said location handling unit is adapted to receive a context message from said application and a priority of parameters is established as a function of said context message," (paragraphs 46, 48, 57).

Consider **claim 13**, and **as applied to claim 10 above**, Vilppula et al. further disclose parameters describing the quality of the positioning data (Quality of Position QoP), such as the positioning accuracy requested by application n, is stored in a register **114**, reading on the claimed "stored parameter values include at least one among an accuracy value, a response time value and a power consumption value," (paragraph 47).

Consider **claim 15**, and **as applied to claim 10 above**, Vilppula et al. further disclose that the user can define conditions relating to the positioning methods, such as an order of preference and whether the user wishes a certain positioning method to be available for use or removed from use, directly to the

PMSD, reading on the claimed "location handling unit comprises a ranking means capable of storing a set of position determination devices with a preference order according to the parameter(s) of higher priority," (paragraph 33).

Consider **claim 16**, and **as applied to claim 15 above**, Vilppula et al. further disclose that the PMSD knows the number of positioning methods available at any given time and their operating state at that time (e.g. in use/not in use) as well as their performance under the prevailing conditions. The highest priority positioning method in the order of preference defined by the user and/or application is examined. The PMSD can monitor the number of available positioning methods and the operating state of each positioning method, or each method can be used in turn and, if a certain positioning method is not available at a particular moment, the next positioning method is selected for use, reading on the claimed "location handling unit comprises an availability checking means for checking whether a preferred position determination device in said set is available or not and, in the negative, for checking the next preferred position determination device," (paragraphs 8, 61).

Consider **claim 17**, and **as applied to claim 10 above**, Vilppula et al. further disclose that the PMSD may access previously stored positioning data obtained from any appropriate positioning method and combine that with newly received positioning data. In this embodiment, it is advantageous to associate a time-stamp with each positioning request, so that the most recently obtained

positioning results can be selected for combination. A period of validity may also be defined for the positioning data, such that stored positioning data is deleted once its period of validity expires, reading on the claimed "location handling unit is capable of providing to said application position data together with accuracy information relating to said data," (paragraph 55).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. **Claims 1-4** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vilppula et al. (Pub # U.S. 2002/0019698 A1)** in view of **Roel-Ng et al. (U.S. Patent # 6,002,936)**, and in further view of **Borkowski et al. (U.S. Patent # RE38,267 E)**.

Consider **claim 1**, Vilppula et al. clearly show and disclose a method for position determination in which one or more application (**201**, **202**) requests a positioning method selection device (**204**), reading on the claimed "mobile equipment," for positioning data. The positioning method selection device provides an application with positioning data using one or more positioning methods (**205** to **209**), reading on the claimed "position determination device," in accordance with settings defined by the application and/or the user, reading on the claimed "method for generating position information in a mobile equipment provided with at least two position determination devices," (abstract and figure 2), the method comprising the following steps:

- maintaining a centralized register on at least one positioning property of said one or more positioning method, reading on the claimed "allocating to each position determination device at least one stored parameter value," (paragraph 15),

- applications defining parameters relating to the positioning data requested, such as a required accuracy or the type and format of the positioning data, reading on the claimed "determining a context information," (paragraph 44),
- automatically determining the best possible positioning method available for use by the terminal's applications, based on requirements specifying the quality of service (Quality of Positioning, QoP) defined by the user or the application, without having to know the behavior of the available positioning methods under different conditions, reading on the claimed "depending on the context information, choosing a corresponding position determination device selection process based on the value of said at least one parameter for each position determination device," (paragraph 7), and
- selecting a positioning method for use that fulfils at least one specified condition for selecting a positioning method, reading on the claimed "selecting a position determination device according to the chosen selection process," (paragraph 18).
- the PMSD knows the number of positioning methods available at any given time and their operating state at that time (e.g. in use/not in use) as well as their performance under the prevailing conditions. The application (or applications) form the parameter

value or values indicating the quality of the positioning required, and send it (them) to the PMSD, whereupon the PMSD is able to select the most suitable positioning method to provide the positioning data on the basis of the received parameter (or parameters) and provides the positioning data to the application (or applications) in the correct format, i.e. in a format requested by the application, reading on the claimed "identifying a position data format as requested by an application, determining whether a currently active position determination device supplies data according to this format," (paragraphs 8, 31).

However, Vilppula et al. do not specifically disclose that the positioning methods are activated upon selection.

In the same field of endeavor, Roel-Ng et al. clearly show and disclose telecommunications method for allowing a cellular network to determine the optimum positioning method, reading on the claimed "method for generating position information," (abstract). When a Requesting Application (RA) **380** sends a positioning request for a particular mobile station (MS) **300** to a Mobile Positioning Center (MPC) **370**, the RA can also include quality of service information, such as data rate and/or reliability of the positioning information returned by the cellular network (MPC) performing the positioning, reading on the claimed "context information," (col. 4 lines 41-49, figure 3). When a positioning request comes in to the MPC, it must then determine the optimum positioning

method, reading on the claimed "position determination device," based upon the available network-based and terminal-based positioning methods and the quality of service requested by the RA, reading on the claimed "depending on the context information, choosing a corresponding position determination device selection process based on the value of said at least one parameter for each position determination device," (col. 5 lines 33-38). Once the positioning method has been chosen, the positioning request, along with the positioning method, is sent to the serving MSC/VLR **350**, which then forwards the positioning requests to a serving Base Station Controller (BSC) **340**. If the MS is idle mode, the serving MSC/VLR must page the MS and setup a call prior to forwarding the request to the BSC, reading on the claimed "activating said selected position determination device," (col. 5 lines 38-46). If the positioning method is a terminal-based positioning method, the BSC sends the positioning request to the MS collects the positioning data, and if the MS has calculation abilities, the MS determines its location, reading on the claimed "method for generating position information in a mobile equipment," (col. 5 lines 56-61).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to page or setup a call to the mobile station in order to activate the terminal-based positioning method as taught by Roel-Ng et al. in the method Vilppula et al., in order to successfully determine the position of a terminal device.

However, Vilppula et al., as modified by Roel-Ng, do not specifically disclose that if the position method does not use the requested format, the position data is converted.

In the same field of endeavor, Borkowski et al. clearly show and disclose a method of determining the location of a mobile station comprises acquiring network identification data for the mobile station, and translating the acquired network identification data info into geographical location information. A mobile station locator (MSL) translates the network data into position information such as geographic coordinates, resolution and angle values. The MSL maintains an information resource responsive to input cellular data for generating a corresponding geographical location estimate. The Locator receives location data and performs conversions to provide uniform output message format to applications (API), reading on the claimed "converting the position data supplied by the currently active position determination device into the requested position data format," (abstract, col. 1 lines 40-46, col. 2 lines 45-47, col. 9 lines 14-16).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to convert location data into a format for the applications as taught by Borkowski et al. in the method Vilppula et al., as modified by Roel-Ng et al., in order to successfully determine the position of a terminal device.

Consider **claim 2**, the combination of Vilppula et al. and Roel-Ng et al., as modified by Borkowski et al., disclose the claimed invention **as applied to claim**

1 above, and in addition, Vilppula et al. further disclose parameters describing the quality of the positioning data provided by positioning method x is stored in register **115**, where x indicates the positioning method in use and is an integer between 1 and the number of available positioning methods, reading on the claimed "at least two stored parameter values are allocated to each position determination device," (paragraph 48).

Consider **claim 3**, the combination of Vilppula et al. and Roel-Ng et al., as modified by Borkowski et al., disclose the claimed invention **as applied to claim 2 above**, and in addition, Vilppula et al. further disclose parameters describing the quality of the positioning data (Quality of Position QoP), such as the positioning accuracy requested by application n, is stored in a register **114**, reading on the claimed "stored parameter values include at least one among an accuracy value, a response time value and a power consumption value," (paragraph 47).

Consider **claim 4**, the combination of Vilppula et al. and Roel-Ng et al., as modified by Borkowski et al., disclose the claimed invention **as applied to claim 3 above**, and in addition, Vilppula et al. further disclose that a user can define parameters relating to position determination directly to the PMSD through the user interface instead of giving definitions separately to each application. The user can define, for example, the accuracy with which applications receive positioning data or which positioning method the user prefers to use as the first-choice positioning method, reading on the claimed "ranking the position

determination devices depending on the chosen selection process," (paragraph 56) and the PMSD makes use of its monitoring capability to select the best possible positioning method for each of the sequence of requests, reading on the claimed "selecting an available position determination device of best rank," (paragraph 53).

10. **Claim 11** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Vilppula et al. (Pub # U.S. 2002/0019698 A1)** in view of **Roel-Ng et al. (U.S. Patent # 6,002,936)**.

Consider **claim 11**, and **as applied to claim 10 above**, Vilppula et al. clearly show and disclose the claimed invention except that the positioning methods, reading on the claimed "position determination devices," are cell-based, satellite-based and beacon-based.

In the same field of endeavor, Roel-Ng et al. clearly show and disclose telecommunications method for allowing a cellular network to determine the optimum positioning method, reading on the claimed "method for generating position information," (abstract). The Mobile Positioning Center (MPC) must choose the optimum positioning method available that can be network-based, e.g. Timing Advance method, Time of Arrival method, or Angle of Arrival method, or terminal based, e.g., Global Positioning System method, Observed Time Difference method, or Enhanced OTD method, reading on the claimed "position determination devices are selected from the group comprising cell-based

positioning devices, satellite-based positioning devices and beacon-based positioning devices," (col. 4 lines 50-59).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to use network-based or terminal-based positioning methods as taught by Roel-Ng et al. in the method Vilppula et al., in order to successfully determine the position of a terminal device.

11. **Claims 18-20** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Vilppula et al. (Pub # U.S. 2002/0019698 A1)** in view of **Borkowski et al. (U.S. Patent # RE38,267 E)**.

Consider **claim 18**, and **as applied to claim 10**, Vilppula et al. clearly show and disclose the claimed invention except that data is converted.

In the same field of endeavor, Borkowski et al. clearly show and disclose a method of determining the location of a mobile station comprises acquiring network identification data for the mobile station, and translating the acquired network identification data info into geographical location information. A mobile station locator (MSL) translates the network data into position information such as geographic coordinates, resolution and angle values. The MSL maintains an information resource responsive to input cellular data for generating a corresponding geographical location estimate. The Locator receives location data and performs conversions to provide uniform output message format to applications (API), reading on the claimed "position data conversion unit in

communication with said location handling unit," (abstract, col. 1 lines 40-46, col. 2 lines 45-47, col. 9 lines 14-16).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to convert location data into a format for the applications as taught by Borkowski et al. in the method Vilppula et al., in order to successfully determine the position of a terminal device.

Consider **claim 19**, Vilppula et al., as modified by Borkowski et al., clearly show and disclose the claimed invention **as applied to claim 18 above**, and in addition, Borkowski et al. further disclose that the MSC invokes transmission of cellular data pertaining to a mobile station in response to a trigger command. The mobile station locator translates the network data into position information, reading on the claimed "location handling unit is responsive to data format requirement information provided by the application for requesting conversion by said position data conversion unit," (abstract, col. 3 lines 12-15).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to convert location data into a format for the applications as taught by Borkowski et al. in the method Vilppula et al., in order to successfully determine the position of a terminal device.

Consider **claim 20**, Vilppula et al., as modified by Borkowski et al., clearly show and disclose the claimed invention **as applied to claim 19 above**, and in addition, Vilppula et al. further disclose that the PMSD may access previously stored positioning data obtained from any appropriate positioning method and

combine that with newly received positioning data. In this embodiment, it is advantageous to associate a time-stamp with each positioning request, so that the most recently obtained positioning results can be selected for combination. A period of validity may also be defined for the positioning data, such that stored positioning data is deleted once its period of validity expires, reading on the claimed "position history unit capable of storing a plurality of position data together with time/date information," (paragraph 55).

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

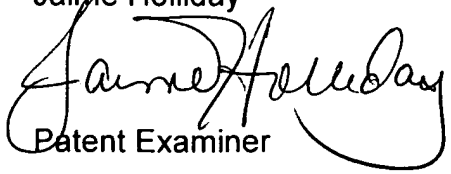
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jaime M. Holliday whose telephone number is (571) 272-8618. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Feild can be reached on (571) 272-4090. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jaime Holliday



Patent Examiner

JOSEPH FEILD
SUPERVISORY PATENT EXAMINER